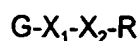


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WHAT IS CLAIMED IS:

1. An isolated peptide of the general formula:



wherein

- 5 G is glutamate or glutamine;
- X₁ is a bond or an amino acid selected from the group consisting of
glycine, alanine, valine, leucine, isoleucine, proline,
phenylalanine, tyrosine, tryptophan, cysteine, methionone,
serine, threonine, lysine, arginine, histidine, aspartate,
10 glutamate, asparagine, and glutamine;
- X₂ is an amino acid selected from the group consisting of glycine,
alanine, valine, leucine, isoleucine, proline, phenylalanine,
tyrosine, tryptophan, cysteine, methionone, serine, threonine,
lysine, arginine, histidine, aspartate, glutamate, asparagine,
15 and glutamine, and
- R is a tripeptide wherein at least one amino acid of said tripeptide is
selected from the group consisting of valine, leucine,
isoleucine, phenylalanine, tyrosine, and tryptophan.
2. A peptide according to claim 1, wherein:
- 20 X₁ is a bond, and
- R is a tripeptide wherein only one amino acid of said tripeptide is
selected from the group consisting of valine, leucine,
isoleucine, phenylalanine, tyrosine, and tryptophan.
3. A peptide according to claim 1, wherein:
- 25 X₁ is a bond, and

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R is a tripeptide wherein two amino acids of said tripeptide are independently selected from the group consisting of valine, leucine, isoleucine, phenylalanine, tyrosine, and tryptophan.

4. A peptide according to claim 1, wherein:
 5 X_1 is a bond, and
 R is a tripeptide wherein each of the amino acids of said tripeptide are independently selected from the group consisting of valine, leucine, isoleucine, phenylalanine, tyrosine, and tryptophan.
5. A peptide according to claim 4, wherein X_2 is proline.
- 10 6. A peptide according to claim 1, wherein said peptide is selected from the group consisting of:
 Glutamate—Proline—Leucine—Tyrosine—Isoleucine;
 Glutamate—Proline—Leucine—Tyrosine—Valine;
 Glutamate—Proline—Leucine—Phenylalanine—Isoleucine; and
 15 Glutamate—Proline—Leucine—Phenylalanine—Valine.
7. A composition comprising a peptide according to claim 1 and a carrier therefor.
8. An isolated antibody to a peptide according to claim 1.
9. An antibody according to claim 8, wherein said antibody is a
 20 monoclonal antibody.
10. An antibody according to claim 8, wherein said antibody is 6C5

antibody
wrong

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11. An antibody according to claim 8, wherein said antibody is produced by the cell line F6-6C5-H4.
12. An antibody according to claim 8, wherein said antibody is a polyclonal antibody.
- 5 13. The cell line F6-6C5-H4.
14. A method of treating a yeast infection in a patient in need of such treatment comprising administering to said patient a composition comprising an active agent, wherein said active agent is an antibody according to claim 8.
- 10 15. A method of detecting a hydrophobic binding domain in a sample containing multiple components, comprising the steps of:
providing an antibody according to claim 8, wherein said antibody is labeled with a detectable marker;
contacting the sample with an antibody according to claim 8; and
15 isolating any resulting complexes formed between the sample components and the labeled antibodies.
16. The method of claim 15 wherein said detection is performed *in vivo*.
17. The method of claim 15 wherein said detection is performed *in vitro*.
18. A method of isolating a hydrophobic binding domain comprising the
20 steps of:

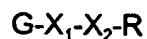
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providing an antibody according to claim 8, wherein said antibody is
labeled with a detectable marker, and wherein said antibody is
bound to a solid support;

5 contacting a sample containing multiple components with said
 antibody; and
 washing the solid support to remove unbound material.

19. A method of treating a yeast infection in a patient in need of such
treatment comprising administering to said patient a composition comprising
an active agent, wherein said active agent is

10 a peptide of the general formula:



 wherein

 G is glutamate or glutamine;

 15 X₁ is a bond or an amino acid selected from the group
 consisting of glycine, alanine, valine, leucine,
 isoleucine, proline, phenylalanine, tyrosine, tryptophan,
 cysteine, methionone, serine, threonine, lysine,
 arginine, histidine, aspartate, glutamate, asparagine,
 and glutamine;

 20 X₂ is an amino acid selected from the group consisting of
 glycine, alanine, valine, leucine, isoleucine, proline,
 phenylalanine, tyrosine, tryptophan, cysteine,
 methionone, serine, threonine, lysine, arginine,
 histidine, aspartate, glutamate, asparagine, and
 25 glutamine, and

 R is a tripeptide wherein at least one amino acid of said
 tripeptide is selected from the group consisting of

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valine, leucine, isoleucine, phenylalanine, tyrosine, and tryptophan.

20. A method according to Claim 19 wherein
X₁ is a bond, and
5 R is a tripeptide wherein one amino acid of said tripeptide is selected
from the group consisting of valine, leucine, isoleucine,
phenylalanine, tyrosine, and tryptophan.
21. A method according to claim 19 wherein said active agent is
introduced orally.
- 10 22. A method according to claim 19 wherein said active agent is
introduced intravenously.
23. A method according to claim 19 wherein said active agent is applied
topically.
24. An isolated peptide of the general formula:
15
$$E-X_1-L-X_2-X_3-X_4$$

wherein
E is glutamate;
X₁ is an amino acid selected from the group consisting of proline,
lysine, and glutamate;
20 X₂ is an amino acid selected from the group consisting of
phenylalanine and tyrosine;
X₃ is an amino acid selected from the group consisting of isoleucine
and valine; and

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X₄ is an amino acid selected from the group consisting of serine and threonine.

25. A composition comprising a peptide according to claim 23 and a carrier therefor.
- 5 26. An isolated antibody to a peptide according to claim 23.
27. An antibody according to claim 25, wherein said antibody is a monoclonal antibody.
28. An antibody according to claim 26, wherein said antibody is 5D8.
29. An antibody according to claim 26, wherein said antibody is produced
10 by the cell line F6-5D8-A12.
30. An antibody according to claim 25, wherein said antibody is a polyclonal antibody.
31. The cell line F6-5D8-A12.
32. A method of treating a yeast infection in a patient in need of such
15 treatment comprising administering to said patient a composition comprising an active agent, wherein said active agent is an antibody according to claim 25.
33. A method of detecting a hydrophobic binding domain in a sample containing multiple components, comprising the steps of:

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providing an antibody according to claim 25, wherein said antibody is
labeled with a detectable marker;

contacting the sample with an antibody according to claim 25; and
isolating any resulting complexes formed between the sample

5 components and the labeled antibodies.

34. The method of claim 33 wherein said detection is performed *in vivo*.

35. The method of claim 33 wherein said detection is performed *in vitro*

36. A method of isolating a hydrophobic binding domain comprising the
steps of:

10 providing an antibody according to claim 25, wherein said antibody is
labeled with a detectable marker, and wherein said antibody is
bound to a solid support;

contacting a sample containing multiple components with said
antibody; and

15 washing the solid support to remove unbound material.

37. A method of treating a yeast infection in a patient in need of such
treatment comprising administering to said patient a composition comprising
an active agent, wherein said active agent is
peptide of the general formula:

20
$$E-X_1-L-X_2-X_3-X_4$$

wherein

E is glutamate;

X₁ is an amino acid selected from the group consisting of proline,
lysine, and glutamate;

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X₂ is an amino acid selected from the group consisting of
phenylalanine and tyrosine;

X₃ is an amino acid selected from the group consisting of isoleucine
and valine; and

5 X₄ is an amino acid selected from the group consisting of serine and
threonine.

38. A method according to claim 37 wherein said active agent is
introduced orally.

10 39. A method according to claim 37 wherein said active agent is
introduced intravenously.

40. A method according to claim 37 wherein said active agent is applied
topically.

41. An isolated 5F8 antibody.

15 42. An antibody according to claim 41, wherein said antibody is produced
by the cell line F6-5F8-E10.

43. The cell line F6-5F8-E10.

20 44. A method of treating a yeast infection in a patient in need of such
treatment comprising administering to said patient a composition comprising
an active agent, wherein said active agent is an antibody according to claim
41.

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45. A method of detecting a hydrophobic binding domain in a sample containing multiple components, comprising the steps of:
providing an antibody according to claim 41, wherein said antibody is labeled with a detectable marker;
5 contacting the sample with an antibody according to claim 41; and isolating any resulting complexes formed between the sample components and the labeled antibodies.
46. The method of claim 45 wherein said detection is performed *in vivo*.
47. The method of claim 46 wherein said detection is performed *in vitro*.
- 10 48. A method of isolating a hydrophobic binding domain comprising the steps of:
providing an antibody according to claim 41, wherein said antibody is labeled with a detectable marker, and wherein said antibody is bound to a solid support;
15 contacting a sample containing multiple components with said antibody; and
washing the solid support to remove unbound material.

We claim:

- (1.) A monoclonal antibody that specifically binds to an epitope of a hydrophobic cell wall protein of a yeast from the *Candida* genus and inhibits the binding of the protein to a tissue of a mammalian host.
- 5 (2.) The antibody of claim 1, wherein the hydrophobic cell wall protein mediates adhesion of the yeast to the tissue.
- (3.) The antibody of any of claims 1 and 2, wherein the hydrophobic cell wall protein mediates adhesion of the yeast to the tissue under conditions of physiological shear present in the tissue.
- 10 (4.) The monoclonal antibody of claim 3, which is selected from the group consisting of 5F8, 5D8, 1C1 and 6C5 antibodies and fragments or mixtures thereof.
- (5.) The monoclonal antibody of claims 3, wherein the antibody is selected from the group consisting of IgG, IgA and IgM.
- (6.) The monoclonal antibody of claim 3, wherein the yeast is selected from the group consisting of *C. albicans*, *C. kefyr*, *C. lipolytica*, *C. rugosa*, *C. stellatoidea* and *C. tropicalis* and strains thereof.
- 15 (7.) The monoclonal antibody of claim 3, wherein the antibody is selected from the group consisting of 5F8, 5D8, 1C1 and 6C5 antibodies and fragments and mixtures thereof.
- 20 (8.) The antibody of claims 3, wherein the molecular weight of the hydrophobic cell wall protein, as determined by SDS-PAGE, is less than about 90 kDa. *all*
- (9.) The antibody of claim 8, wherein the molecular weight of the hydrophobic cell wall protein, as determined by SDS-PAGE, is between about 20-70 kDa. *55kD 5F8*
- (10.) The antibody of claim 9, wherein the molecular weight of the hydrophobic cell wall protein, as determined by SDS-PAGE, is about 37 kDa, about 38 kDa, about 40 kDa or about 41 kDa. *6C5*
- 25 (11.) The antibody of claim 9, wherein the yeast is *Candida tropicalis*. *p 30*
- (12.) The antibody of claim 11, wherein the molecular weight of the hydrophobic cell wall protein, as determined by SDS-PAGE, is about 40 kDa or about 54 kDa. *5F8*
- 30 (13.) The antibody of claim 9, wherein the yeast is *Candida kefyr*. *6C5 + 5F8*

⑭ The antibody of claim 13, wherein the molecular weight of the hydrophobic cell wall protein, as determined by SDS-PAGE, is about 36 kDa, about 55 kDa or about 65 59 kDa.

15. The antibody of claim 3, wherein the antibody is a human antibody, a chimeric 5 antibody, or a humanized antibody.

16. An antigen binding fragment of the monoclonal antibody of claim 3, wherein said fragment is selected from the group consisting of a Fv fragment, a Fab fragment, a Fab' fragment, and a F(ab')₂.

17. The antibody of claim 3, wherein said antibody is protective against 10 disseminated *Candida* infection in the host.

18. The antibody of claim 3, wherein said antibody is protective against mucocutaneous *Candida* infection in the host.

19. A pharmaceutical composition comprising the antibody claim 3 together with pharmaceutically acceptable carrier and excipients.

15 20. The pharmaceutical composition of claim 19, formulated for systemic administration.

21. The pharmaceutical composition of claim 19, formulated for topical administration.

22. The pharmaceutical composition of claim 19, formulated as an aerosol.

20 23. The pharmaceutical composition of claim 19, further comprising one or more other therapeutic agents.

24. The pharmaceutical composition of claim 23, wherein said one or more other therapeutic agents is an antifungal agent.

25 25. The pharmaceutical composition of claim 23, wherein the antifungal agent is selected from the group consisting of amphotericin B, fluconazole, new generation azoles and mixtures thereof.

26. A method of treating candidiasis in a subject comprising the step of administering to a subject a therapeutically effective amount of the pharmaceutical composition of claim 19.

27. The method of claim 26, wherein the therapeutically effective amount is an amount which is effective to inhibit the binding of a hydrophobic cell wall protein of a yeast from the *Candida* genus to a tissue of a mammalian host.
28. The method of claim 26, wherein the pharmaceutical composition is effective
5 to treat or prevent disseminated candidiasis.
28. The method of claim 26, wherein the pharmaceutical composition is effective to treat or prevent mucocutaneous candidiasis.
29. The method of any of claim 25, wherein the yeast is selected from the group consisting of *C. albicans*, *C. kefir*, *C. lipolytica*, *C. rugosa*, *C. stellatoidea* and *C.*
10 *tropicalis* and strains thereof.
30. A diagnostic kit comprising the antibody of claim 3, together with a reagent for detecting binding of the antibody to a hydrophobic cell wall protein of a yeast from the *Candida* genus.
- (31) A hybridoma cell that expresses the antibody of any of claim 3.
- 15 (32) The antibody of any of claims 1 and 2, wherein the antibody binds to the yeast under conditions of physiological shear present in a host tissue.
- (33) The antibody of claim 32, wherein binding of the antibody blocks attachment of the yeast to the host's tissue or cells.
- (34) A hydrophobic cell wall protein of a yeast of the *Candida* genus which
20 mediates adhesion of the yeast to the tissue of a mammalian host, wherein the molecular weight, as determined by SDS-PAGE, is about 36 kDa, 38 kDa, 40 kDa, 41 kDa, 54 kDa, 55 kDa or 59 kDa.
35. The protein of claim 34, wherein the host tissue is selected from the group consisting of endothelial cells, epithelial cells or extracellular matrix proteins.
- 25 36. The protein of claim 35, wherein the protein is capable of binding to the host tissue under physiological shear conditions present in the tissue.